



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Craig Godbout
Program Manager
Water Supply Planning Section

DATE: June 29, 2015

AGENDA ITEM: 18 (a-e) WSRA Grant Requests

Staff Recommendation - Action Items: WSRA Grant Requests

A summary of staff's recommendation for each WSRA application is provided in the attached table. If applicable, the table also includes a breakdown of match amounts for applications that include a request for statewide WSRA funds.

Favorable recommendations may be contingent on providing the CWCB with additional information, clarifications, or modifications in the scope of work. Please refer to the Water Activity Summary Sheets contained within this agenda item to find a summary of staff's review and any conditions associated with each recommendation.

Background:

For this agenda item the Board is provided with a brief overview of applications to the Water Supply Reserve Account (WSRA). Attachments to this memo include:

- Summary spreadsheet detailing funding requests for the basin and statewide accounts;
- Summary spreadsheet displaying current WSRA Balance Summary of Fund Appropriations and Receipts by Fiscal Year, and Fund Distribution by Basin and Statewide Account.
- Water Activity Summary Sheets which provide an overview, discussion, issues/additional needs, and staff recommendation regarding funding, partial funding, or not funding the applications.

Staff's review of the applications involves the following steps:

- 1) Applications are reviewed for completeness based on the information requirements, which are primarily outlined in Part 2 of the Criteria and Guidelines (C&G).
- 2) Applications are reviewed to verify that the water activity meets the eligibility requirements in Section 39-29-108 (III) C.R.S. (C&G, Part 2) and the threshold criteria, which are based on the requirements of Section 39-29-108 (III) C.R.S., and two



sections of the Water for the 21st Century Act (House Bill 1177); Section 37-75-102 and Section 37-75-104(2)(c) (C&G, Part 3). Staff also verifies that the applicant was an eligible entity to receive funding (C&G, Part 2).

- 3) Staff then prepares the Water Activity Summary Sheet which documents the outcome of the review process and contains staff's recommendations.

Water Supply Reserve Account Balance Summary and Project Status Report:

To provide the Board updates on the status of specific Water Supply Reserve Account grant applications and projects, staff provides a status report in the CWCBC Director's Report. The WSRA status report includes the following information:

- List of completed WSRA projects;
- List of WSRA projects in progress; and
- List of WSRA projects in the contracting and procurement process.



Water Supply Reserve Account Applications for Consideration at the CWCB July 2015 Board Meeting

Agenda Item	Basin	Applicant	Name of Water Activity	Basin(s) Account Request	Statewide Account Requests	Total Request	Cash Match	In-Kind Match	Total Match	Total Project or Study Costs	Staff Recommendations	PM
18(a)	Colorado	Colorado River Water Conservation District and West Divide Water Conservancy District	Kendig Reservoir Feasibility Evaluations	\$40,000	\$0	\$40,000	\$20,000	\$0	\$20,000	\$60,000	Staff recommends approval of up to \$40,000 from the Colorado Basin Account	Brent Newman
18(b)	Colorado	Water Enhancement Authority	Remote Cloud Seeder North Grand Mesa	\$25,000	\$0	\$25,000	\$17,500	\$1,872	\$19,372	\$44,372	Staff recommends approval of up to \$25,000 from the Colorado Basin Account	Joe Busto
18(c)	Gunnison	Water Enhancement Authority	Remote Grand Mesa Cloud Seeder	\$25,000	\$0	\$25,000	\$17,500	\$1,872	\$19,372	\$44,372	Staff recommends approval of up to \$25,000 from the Gunnison Basin Account	Joe Busto
18(d)	Rio Grande	Rio Grande Watershed Conservation and Education Initiative	Meeting the Rio Grande Basin Roundtable's Public Education and Public Outreach Goals	\$45,300	\$0	\$45,300	\$58,500	\$52,200	\$110,700	\$156,000	Staff recommends approval of up to \$45,300 from the Rio Grande Basin Account	Kate McIntire
18(e)	Yampa/White/Green	Routt County Conservation District	Assessing the Impact of Current and Altered Irrigation Practices on Groundwater Conditions and Return Flows to the Yampa and White Rivers	\$13,250	\$0	\$13,250	\$0	\$0	\$0	\$13,250	Staff recommends approval of up to \$13,250 from the Yampe/White/Green Basin Account	Craig Godbout
				\$148,550	\$0	\$148,550						

<u>Basin</u>	<u>Basin Account Requests</u>	<u>Statewide Account Requests</u>	<u>Total Requests</u>	<u>Current Basin Account Balances</u>	<u>Remaining Basin Account Balances (if all requests approved)</u>	<u>Remaining Statewide Account Balance (if all requests approved)</u>
<u>Arkansas Basin</u>	\$0	\$0	\$0	\$360,963	\$360,963	
<u>Colorado Basin</u>	\$65,000	\$0	\$65,000	\$541,905	\$476,905	
<u>Gunnison Basin</u>	\$25,000	\$0	\$25,000	\$565,278	\$540,278	
<u>Metro Basin</u>	\$0	\$0	\$0	\$242,811	\$242,811	
<u>North Platte</u>	\$0	\$0	\$0	\$1,377,574	\$1,377,574	\$2,171,549
<u>Rio Grande</u>	\$45,300	\$0	\$45,300	\$317,630	\$272,330	
<u>Southwest</u>	\$0	\$0	\$0	\$850,916	\$850,916	
<u>South Platte</u>	\$0	\$0	\$0	\$377,959	\$377,959	
<u>Yampa/White/Green</u>	\$13,250	\$0	\$13,250	\$1,008,352	\$995,102	
<u>Water Supply Reserve Account Total Requests</u>	\$148,550	\$0	\$148,550	\$5,643,388	\$5,494,838	

COLORADO WATER CONSERVATION BOARD
Water Supply Reserve Account - Balance Summary
June 2015

Updated 06/01/15

Fund Appropriation and Receipts				
Fiscal Year	Legislative Appropriation	Funds Received	Statewide Account	Basin Account
2006/2007	\$10,000,000	\$10,000,000	\$5,500,000	\$4,500,000
2007/2008	\$6,000,000	\$6,000,000	\$4,200,000	\$1,800,000
2008/2009	\$10,000,000	\$7,000,000	\$4,300,000	\$2,700,000
2009/2010	\$5,775,000	\$5,775,000	\$4,215,750	\$1,559,250
2010/2011	\$6,000,000	\$6,000,000	\$4,380,000	\$1,620,000
2011/2012	\$7,000,000	\$7,000,000	\$4,732,000	\$2,268,000
2012/2013	\$10,000,000	\$7,157,724	\$4,580,943	\$2,576,781
2013/2014	\$10,000,000	\$10,091,639	\$6,458,649	\$3,632,990
2014/2015	\$10,000,000	\$10,000,000	\$6,400,000	\$3,600,000
Interest	N/A	\$2,857,935	\$1,829,078	\$1,028,856
2014/2015 Interest	N/A	\$ 199,460	\$199,460	\$0
TOTAL	\$74,775,000	\$72,081,758	\$46,795,880	\$25,285,877

Note: The WSRA is a Severance Tax "Tier II" program with 40% of funds distributed on July 1, 30% on January 1, and the final 30% on April 1.

In FY 2008/2009 the final 30% installment of \$3,000,000 was not received due to the State's budgetary shortfall.

In January 2012 interest for the program from its inception to date was credited directly to the Statewide Account.

Interest from January 2012 on is regularly calculated by the Treasury and credited to the Statewide Account.

Fund Distribution					
Basin	Approved Basin Grants	Total Basin Funds	Basin Account Balance	Approved State Grants	Statewide Account Balance
Arkansas	\$2,448,579	\$2,809,542	\$360,963	\$7,113,535	
Colorado	\$2,267,637	\$2,809,542	\$541,905	\$5,164,260	
Southwest	\$1,958,626	\$2,809,542	\$850,916	\$5,270,859	
Gunnison	\$2,244,264	\$2,809,542	\$565,278	\$4,037,791	
Metro	\$2,566,731	\$2,809,542	\$242,811	\$5,713,284	
North Platte	\$1,431,968	\$2,809,542	\$1,377,574	\$408,078	
Rio Grande	\$2,491,912	\$2,809,542	\$317,630	\$10,260,323	
South Platte	\$2,431,583	\$2,809,542	\$377,959	\$6,044,138	
Yampa/White	\$1,801,190	\$2,809,542	\$1,008,352	\$612,063	
TOTAL	\$19,642,490	\$25,285,877	\$5,643,387	\$44,624,331	\$2,171,549
TOTAL APPROVED GRANTS					\$64,266,821

Note: Only includes grants approved by CWCB

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
July 15-16, 2015
Agenda Item 18(a)

Co-Applicants: Colorado River Water Conservation District and West Divide Water Conservancy District

Fiscal Agent: Colorado River Water Conservation District

Water Activity Name: Kendig Reservoir Feasibility Evaluations

Water Activity Purpose: Multi-Purpose (potential for M&I, Agriculture, Environmental & Recreational, Hydropower, Augmentation Supplies & Stock Water)

County: Garfield & Mesa

River Basin: Colorado

Water Source: West Divide Creek

Amount Requested/Source of Funds: \$40,000 Colorado Basin Account (total grant request)

Matching Funds: Applicant Match (\$20,000/cash) = 33.3% of total study costs
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$40,000 from the Colorado Basin Account to help fund the study titled: Kendig Reservoir Feasibility Evaluations.
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Water Activity Summary: WSRA funds, if approved, would be expended to fund an evaluation of the development costs and potential operation of a Kendig Reservoir concept that is supplied solely by native gravity inflow from West Divide Creek. Two potential reservoir sites (Lower Kendig and Upper Kendig) will be examined to determine which most satisfactorily meets basin needs. The proposed reservoir sites will undergo evaluation because the distribution of annual flows does not coincide with the distribution of annual demand. The selected reservoir site would store the early summer peak flows which would allow late season irrigation demands to be met more frequently; thus, water shortages are reduced. The storage could also be used to supply non-irrigation demands including industrial, domestic, environmental, recreation, and hydropower generation. Preliminary estimates reflect that an average of over 12,000 acre feet of native storable inflow occurs at the site annually, although storable inflow may be 2,000 acre feet or less in critically dry years. It is anticipated that the development of a 5,000 to 15,000 acre foot reservoir at these sites may be appropriate given the amount of storable gravity inflow of West Divide Creek. Although a larger reservoir would provide additional carryover storage for supply in dry years, a smaller reservoir may be more cost effective. Additional study is required to identify optimal reservoir sites, sizes, potential reservoir operation, the firm yield of the reservoir, geotechnical issues and project costs.

Discussion: Kendig Reservoir has been identified in the Colorado Basin Implementation Plan as a Top Project in the Middle Colorado Region (Section 3, Table 18, page 131) satisfying 3 of the BIP's major themes (Theme 1: Ecosystem Health – Protect and Restore Streams, Rivers, Lakes and Riparian Areas; Theme 2: Agriculture – Sustain, Protect and Promote Agriculture; and Theme 3: Safe

Drinking Water - Secure and Protect Safe Drinking Water for Today and Tomorrow; Executive Summary, page 16).

Issues/Additional Needs: No issues or additional needs have been identified.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria

Tier 1-3 Evaluation Criteria: n/a

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Colorado River Water Conservation District	\$10,000	\$0	\$10,000
West Divide Water Conservancy District	\$10,000	\$0	\$10,000
Total Match	\$20,000	\$0	\$20,000
Colorado WSRA Basin Account Grant	\$40,000	n/a	\$40,000
Total Study Costs	\$60,000	\$0	\$60,000

CWCB Project Manager: Brent Newman

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
July 15-16, 2015
Agenda Item 18(b)

Applicant & Fiscal Agent: Water Enhancement Authority
Water Activity Name: Remote Cloud Seeder for North Grand Mesa
Water Activity Purpose: Cloud Seeding
County: Mesa & Delta
Drainage Basin: Colorado
Water Source: n/a
Amount Requested/Source of Funds: \$25,000 Colorado Basin Account (total grant request)
Matching Funds: Applicant match (\$19,372.30/cash & in-kind) = 44% of the total project costs of \$44,372.30
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:
Staff recommends approval of up to \$25,000 from the Colorado Basin Account to help fund the project titled: Remote Cloud Seeder for North Grand Mesa.

Water Activity Summary: WSRA funds, if approved will be expended to purchase a remotely operated cloud seeder that utilizes silver iodide as the seeding nuclei. Following procurement, the seeder will be delivered to and installed at the proposed site, which is about 2 miles north of Big Meadows Reservoir, around 9,500 feet on the Grand Mesa almost due south of Collbran, Colorado on U.S.F.S. Land. This seeder will join 17 other cloud seeders operated by the Water Enhancement Authority for the purpose of increasing snowpack levels on the Grand Mesa and other surrounding higher terrain. This particular location allows the cloud seeder to be close to the cloud bases it will target as well as be upwind of a good portion of our target area during storm events with north-northwest winds accompanying it and fills in one of the remaining “coverage gaps” in the Grand Mesa. This proposed effort will compliment the goals of the CWCB Weather Modification Program and will provide the opportunity supports technology transfer and modernization of cloud seeding equipment.

Discussion:

This project aligns with a Method (Evaluate weather modification projects (e.g. Cloud seeding) to enhance local water supplies) to assist in satisfying the Secure Safe Drinking Water Theme and Supporting Values for the Grand Valley Region as indicated in the Colorado Basin Implementation Plan (Section 3, Page 121).

\$38,774.60 was indicated by the applicant as the cash and in-kind match for this project, as well as for the Gunnison Basin Roundtable WSRA Grant application for WEA’s Remote Grand Mesa Cloud Seeder project. The proposed match actually applies to both grant requests; therefore the total match has been split 50/50 between the two grant requests at \$19,372.30 each.

Issues/Additional Needs:

Whether the equipment will be purchased or leased remains to be determined.

As a condition for funding this grant is that the WEA must host a training event and invite all other project sponsors and contractors of seeding programs to the deployment and demonstration by Idaho Power Company.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria

Tier 1-3 Evaluation Criteria: n/a**Funding Summary/Matching Funds:**

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WEA	\$17,500	\$1,872.30	\$19,372.30
WSRA Colorado Basin Account	\$25,000	\$0	\$25,000
Total Project Costs	\$42,500	\$1,872.30	\$44,372.30

CWCB Project Manager: Joe Busto

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
July 15-16, 2015
Agenda Item 18(c)

Applicant & Fiscal Agent: Water Enhancement Authority

Water Activity Name: Remote Grand Mesa Cloud Seeder

Water Activity Purpose: Cloud Seeding

County: Mesa & Delta

Drainage Basin: Gunnison

Water Source: n/a

Amount Requested/Source of Funds: \$25,000 Gunnison Basin Account (total grant request)

Matching Funds: Applicant match (\$19,372.30/cash & in-kind) = 44% of the total project costs of \$44,372.30
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:
Staff recommends approval of up to \$25,000 from the Gunnison Basin Account to help fund the project titled: Remote Grand Mesa Cloud Seeder.

Water Activity Summary: WSRA funds, if approved will be expended to purchase a remotely operated cloud seeder that utilizes silver iodide as the seeding nuclei. Following procurement, the seeder will be delivered to and installed at the proposed site, which is about 2 miles north of Big Meadows Reservoir, around 9,500 feet on the Grand Mesa almost due south of Collbran, Colorado on U.S.F.S. land. This seeder will join 17 other cloud seeders operated by the Water Enhancement Authority for the purpose of increasing snowpack levels on the Grand Mesa and other surrounding higher terrain. This particular location allows the cloud seeder to be close to the cloud bases it will target as well as be upwind of a good portion of our target area during storm events with north-northwest winds accompanying it and fills in one of the remaining “coverage gaps” in the Grand Mesa. This proposed effort will compliment the goals of the CWCB Weather Modification Program and will provide the opportunity supports technology transfer and modernization of cloud seeding equipment.

Discussion:

This project aligns with 4 of the Goals and Measurable Outcomes (#1, #3, #4 & #5; Section 1.2 Basin Goals; Table 11; page 28) identified in the Gunnison Basin Implementation Plan and has been identified as a Tier 1 project (Weather Modification Program Enhancements) in the BIP (Section 5: Conclusions and Recommendations; Table 22: Proposed Basin Projects (Tier 1) and Basin Goals Met; page 182).

\$38,774.60 was indicated by the applicant as the cash and in-kind match for this project, as well as for the Colorado Basin Roundtable WSRA Grant application for WEA’s Remote Cloud Seeder for North Grand Mesa project. The proposed match actually applies to both grant requests; therefore the total match has been split 50/50 between the two grant requests at \$19,372.30 each.

Issues/Additional Needs:

Whether the equipment will be purchased or leased remains to be determined.

As a condition for funding this grant is that the WEA must host a training event and invite all other project sponsors and contractors of seeding programs to the deployment and demonstration by Idaho Power Company.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria

Tier 1-3 Evaluation Criteria: n/a**Funding Summary/Matching Funds:**

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WEA	\$17,500	\$1,872.30	\$19,372.30
WSRA Gunnison Basin Account	\$25,000	\$0	\$25,000
Total Project Costs	\$42,500	\$1,872.30	\$44,372.30

CWCB Project Manager: Joe Busto

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
July 15-16, 2015
Agenda Item 18(d)

Applicant & Fiscal Agent: Rio Grande Watershed Conservation and Education Initiative

Water Activity Name: Meeting the Rio Grande Basin Roundtable’s Public Education and Public Outreach Goals

Water Activity Purpose: Education & Outreach

County: All w/in Rio Grande River Basin

Drainage Basin: Rio Grande

Water Source: n/a

Amount Requested/Source of Funds: \$45,300 Rio Grande Basin Account (total grant request)

Matching Funds: Applicant & 3rd party cash and in-kind match: \$110,700 = 71% of total project costs (\$156,000)
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:
Staff recommends approval of up to \$45,300 from the Rio Grande Basin Account to help fund the project titled: Meeting the Rio Grande Basin Roundtable’s Public Education and Public Outreach Goals.

Water Activity Summary:

Over the past 8 years the Rio Grande Watershed Conservation and Education Initiative (RGWCEI) has taken the lead in roundtable outreach efforts and in collaboration with the roundtable education subcommittee has established a comprehensive education and outreach program. The Basin Implementation Plan process has established an increased need for, and the importance of, ongoing education and outreach as it pertains to all water concerns. The purpose of this project is to further the involvement and learning for all Colorado’s citizens as we move toward 2050. This request for funding seeks to provide a coordinator to manage three year outreach and education activities within the Rio Grande Basin. The coordinator will design, implement, and administer outreach and education activities and serve as a liaison to the IBCC and PEPO Work Group, and coordinators in the other basins. The project will showcase the collaborative work of the Rio Grande Basin Roundtable education committee and that of water users of all types across the Rio Grande Basin. This initiative will work to recognize the value of Colorado’s water and communicate this value by making it readily identifiable to all community members.

Discussion: The proposed project aligns with the Goals and Measurable Outcomes identified in the Rio Grande Basin Implementation Plan (Goals and Measurable Outcomes: #8; Section 3, page 59). In addition, this project comports with Chapter 7: Outreach and Education within the Rio Grande Basin Implementation Plan and the basin roundtable’s Public Education, Participation, and Outreach (PEPO) Workgroup Education Action Plan – for both short- and long-range education and outreach goals.

Issues/Additional Needs: No issues or additional needs have been identified.

Threshold and Evaluation Criteria: The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria: n/a

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
RT Partners	\$7,500	\$52,200	\$59,700
Vignette Partners	\$27,000	\$0	\$27,000
RGWCEI	\$24,000	\$0	\$24,000
Sub-total matching funds	\$58,500	\$52,200	\$110,700
WSRA Rio Grande Basin Account	\$45,300	n/a	\$45,300
Total Project Costs	\$103,800	\$52,200	\$156,000

CWCB Project Manager: Kate McIntire

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
July 15-16, 2015
Agenda Item 18(e)

Applicant & Fiscal Agent: Routt County Conservation District

Water Activity Name: Yampa White Green Phase II Agricultural Needs/Return Flow Study

Water Activity Purpose: Agricultural/Study

County: Rio Blanco, Moffat, Garfield and Routt

Drainage Basin: Gunnison

Water Source: n/a

**Amount Requested/
Source of Funds:** \$13,250 Yampa/White/Green Account (total grant request)

Matching Funds: n/a
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:
Staff recommends approval of up to \$13,250 from the Yampa/White/Green Basin Account to fund the study titled: Yampa White Green Phase II Agricultural Needs/Return Flow Study.

Water Activity Summary: WSRA funds, if approved will be expended to conduct a reconnaissance level scoping effort to better understanding the current magnitude and patterns of return flows from irrigation to Colorado’s Yampa and White River Basins and in predicting changes in return flows that are likely to occur under altered irrigation practices. Such alterations might include:

- (1) Increased application efficiency on existing irrigated lands (through adoption of sprinklers or improved surface irrigation techniques),
- (2) Reduced canal seepage through sealing and/or lining,
- (3) Retirement of irrigated land,
- (4) Rotational fallowing of irrigated land, and
- (5) Expansion of irrigated land.

The associated characteristics and effects on groundwater levels and related conditions (e.g. alteration of hydraulic gradients affecting return flow rates, reduced non-beneficial consumptive use, decrease in soil salinization and waterlogging, reduced extent of wetland and riparian areas) under irrigated alluvial land are also of concern. The YWG BRT sees this as Phase II of the 2010 *Agricultural Water Needs Assessment* conducted by CDM Smith Engineering and Consulting. It was decided that a reconnaissance and scoping effort is needed to clarify the required extent and level of detail for a prospective project aimed at addressing the return flow and groundwater issues.

Discussion: This project aligns with 5 of the Goals and Measurable Outcomes (refer to Section 1: Basin Goals and Measurable Outcomes; Subsections 1.2.3, 1.2.4, 1.2.5, 1.2.7, and 1.2.10; pages 1-7 thru 1-13) identified in the Yampa/White/Green Implementation Plan. While this effort has not been identified as a Project and Method, or an IPP in the BIP, it was considered as one of the “*Next Steps*” to undertaken by the Roundtable.

The CWCB, in 2007 approved \$201,410 for Moffat County to conduct the *Agricultural Water Needs Assessment* that was completed in 2010.

Issues/Additional Needs: No issues or additional needs have been identified.

Threshold and Evaluation Criteria: The application meets all four Threshold Criteria

Tier 1-3 Evaluation Criteria: n/a

Funding Summary/Matching Funds: None provided

CWCB Project Manager: Craig Godbout

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.